



**Supplementary Figure 1** | **Southern blot of embryonic stem cells (ESCs) to screen for uLIPSTIC cassette insertion.** The uLIPSTIC cassette carrying the lox-stop-lox G<sub>5</sub>Thy1.1 followed by mSrtA-PDGFRtm fused to FLAG tag was cloned into the Ai9 *Rosa26* targeting plasmid and this was used as template for homologous recombination in ESCs. Insertion of the uLIPSTIC cassette was assessed in 192 ESCs by Southern blotting using a <sup>32</sup>P-labeled probe annealing upstream of the left arm after EcoRI digestion. Wildtype ESCs show a 15.6 kb fragment, while ESCs carrying the insertion exhibit an extra EcoRI restriction site, resulting in a 7.4 kb fragment upon enzymatic digestion.